

Date: Monday, 14/04/2008 1:07:33 PM  
 User: Julie Lecocq

## Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : 3"SKIDTUBE LIGHT "I" BEAM EXTRUSION
<b>Job Number</b> : 38589	
<b>Estimate Number</b> : 10306	
<b>P.O. Number</b> :	<b>Part Number</b> : D26005108
<b>This Issue</b> : 14/04/2008 <b>S.O. No.</b> :	<b>Drawing Number</b> : D2600 REV D1
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : 1/1 <b>Type</b> : PURCHASED PARTS	<b>Drawing Revision</b> : D1
<b>Previous Run</b> : 29985	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 30/04/2008 <b>Qty:</b> 240 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : JLO 08.4.14	
<b>Comment</b> : Est F 02.09.10 Added DSK 066 KJ/RF	

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
----------------	------------------------------	----------------------

1.0

PG

PURCHASING

**Comment:** Issue P/O: 10165

- a) Extrude as per Dwg D2600
- b) Material: 6061-T6 (QQ-A-200/8)
- c) Minimum yield tensile strength = 35 ksi
- d) Minimum ultimate tensile strength = 40 ksi
- e) Minimum elongation = 8%
- f) Order at 108" long
- g) Caradon Indalex Tool # MS-18871
- h) To be packed per DSK 066
- i) Pull test to ASTM standard B221 required.
- j) Material certification is required

C/O 08/04/17

240

2.0

D26005108P

Extrusion 'I Beam' thin



**Comment:** Qty.: 1.0000 Each(s)/Unit Total: 110.0000 Each(s)  
 EXTRUSION "I" BEAM THIN

3.0

PACKAGING 1

PACKAGING RESOURCE #1



**Comment:** Receive & Inspect For Transit Damage  
 Ensure certification is attached

08/04/2

230

4.0

QC6

DIMENSIONAL CHECK

**Comment:** DIMENSIONAL CHECK

- 1-Inspect dimensions per Dwg D2600
- 2-Check Pull test per Dwg D2600 for compliance page attached.
- 3-Check hardness with Webster tester

08/05/05 230

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 14/04/2008 1:07:34 PM  
User: Julie Lecocq

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 3"SKIDTUBE LIGHT "I" BEAM EXTRUSION

Job Number: 38589

Part Number: D26005108

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 26

Q-m

08.05.05

(230)

6.0

QC21

FINAL INSPECTION/W/O RELEASE



08/05/06 MF

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



MF 08-05-06

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2600	REV. D SHEET 1 OF 5
DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1
A	97.01.21	NEW ISSUE	
B	97.09.09	CHANGE MATERIAL SPEC.	
C	98.04.16	ADD D2600-3, UPDATE D2600-1 WIDTH, ADD DIE NO.	
D	98.08.20	INCREASE MIN. UTS TO 40 KSI	
DI	01.04.17	ADD PART NUMBERS + DIE NUMBERS <i>4 GP</i>	

RELEASED  
98.08.25 DS

### GENERAL NOTES

1. MATERIAL: 6061-T6 (QQ-A-200/8)

MINIMUM YIELD TENSILE STRENGTH = 35 ksi  
MINIMUM ULTIMATE TENSILE STRENGTH = 40 ksi  
MINIMUM ELONGATION = 8 %

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED  
TO ASTM STANDARD B221 BY AN APPROVED TESTING  
FACILITY TO ENSURE THAT THE BATCH MEETS THE  
ABOVE MINIMUM MECHANICAL PROPERTIES.

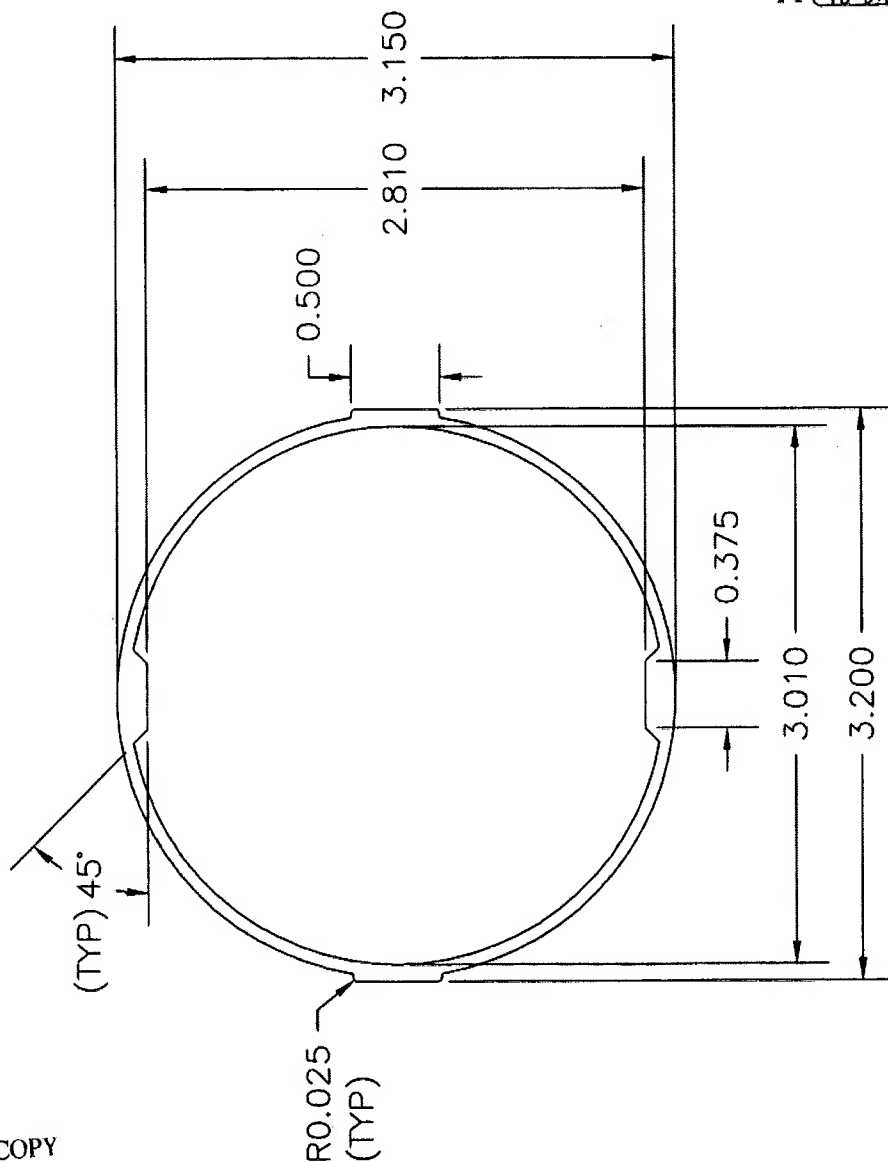
2. BREAK ALL SHARP CORNERS 0.010 MAX.
3. NO TOOLING MARKS.
4. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE  
NOTED.
5. ALL DIMENSIONS ARE IN INCHES.

SHOP COPY  
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SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. *38589*



DESIGN <i>DP</i>	DRAWN BY <i>DP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>DP</i>	DRAWING NO. D2600	REV. D SHEET 2 OF 5
DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1

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98.8.25 DS



D2600-1

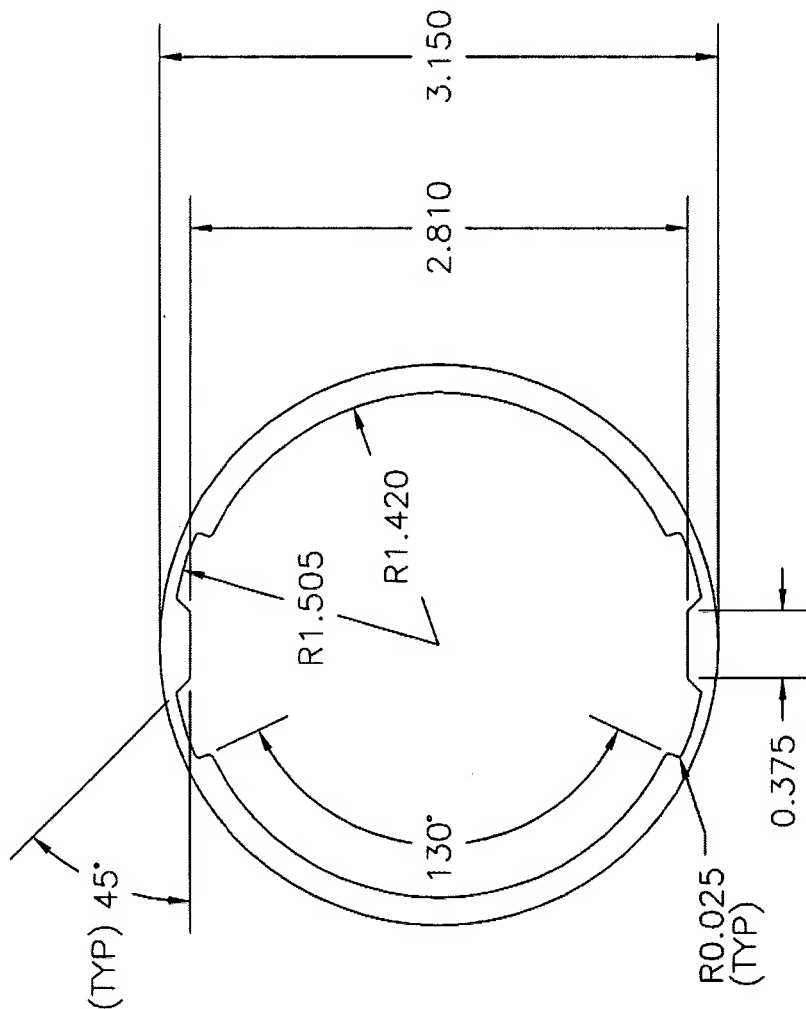
MANUFACTURED WITH CARADON INDALOX DIE # MH-18870  
OR 80W L DIE # 897121 (PREFERRED CHOICE)  
PART NUMBER IS D2600-1-XXX WHERE XXX IS CUT LENGTH IN INCHES (EG. D2600-1-160 IS 160\"/>

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WORK ORDER  
NO. 38589



DESIGN <i>DIP</i>	DRAWN BY <i>DIP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>SA</i>	DRAWING NO. D2600	REV. D SHEET 3 OF 5
DATE 98.08.20	TITLE EXTRUSION		SCALE 1:1

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WORK ORDER  
NO. 38589

D2600-3

MANUFACTURED WITH CARADON INDALEX DIE # MH-18859

OR BON L DIE # 897122 (PREFERRED CHOICE)

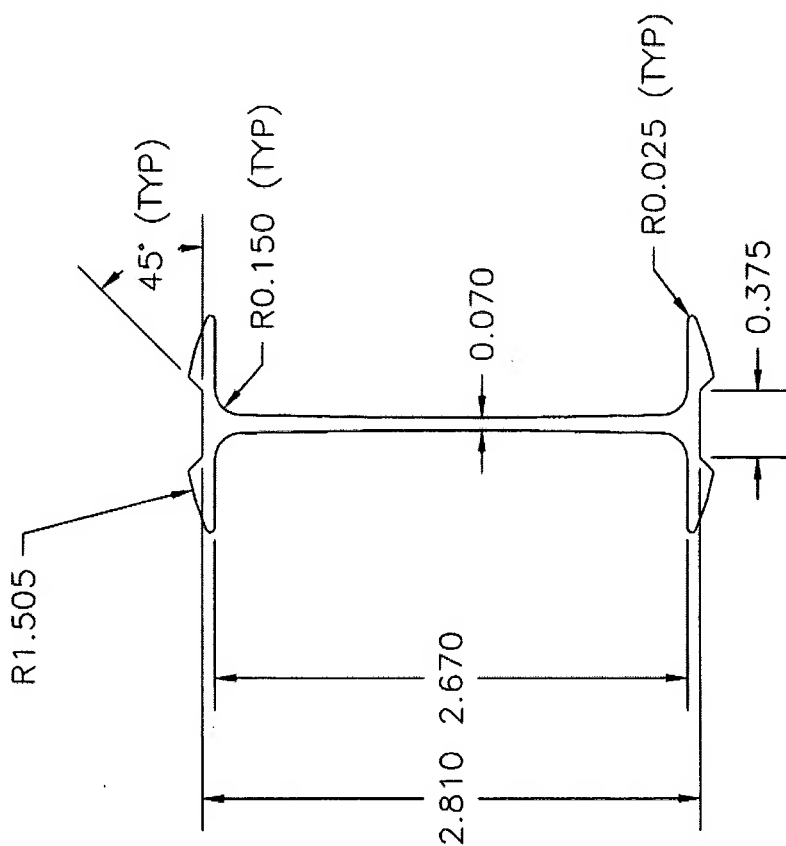
PART NUMBER IS D2600-3-XXX WHERE XXX IS CUT LENGTH IN INCHES (EG. D2600-3-120 IS 120" LONG)





DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2600	REV. D SHEET 4 OF 5
DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1

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98.8.25. DS



D2600-5

MANUFACTURED WITH CARADON INDALEX DIE # MS-18871  
PART NUMBER IS D2600-5-XXX WHERE XXX IS CUT LENGTH IN INCHES  
(EG. D2600-5-108 IS 108" LONG)



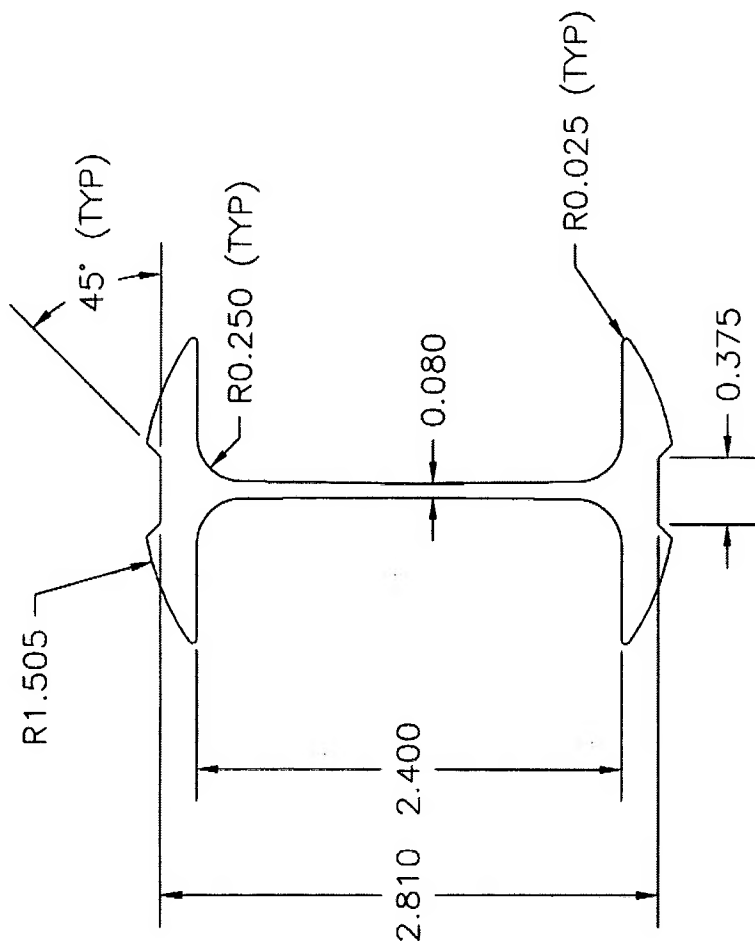
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WORK ORDER  
NO. 38589





DESIGN <i>MA</i>	DRAWN BY <i>MA</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>AS</i>	DRAWING NO. D2600	REV. 0 SHEET 5 OF 5
DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1

RELEASED  
98.8.25 DS



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SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 38587

D2600-7  
MANUFACTURED WITH CARADON INDALEX DIE # MS-18872  
PART NUMBER IS D2600-7-XXX WHERE XXX IS CUT LENGTH IN INCHES  
(Eg. D2600-7-125 IS 125" LONG)







INDALEX LIMITED  
325 AVRO Street  
POINTE-CLAIRE, QC H9R 5W3  
TELEPHONE: (514) 697-5120 & (800) 563-5120  
FACSIMILE: (514) 694-8310 & (800) 563-8310

## FACSIMILE TRANSMITTAL SHEET

TO: Christina Young

FROM: Bruno Morency  
Quality Technician

COMPANY:

DART AEROSPACE LTD

DATE:

2008/04/30

FAX NUMBER:

1(613) 632-4443

TOTAL NO. OF PAGES INCLUDING COVER:

2

PHONE NUMBER:

SENDER'S REFERENCE NUMBER:

SUBJECT:

REPORT

TIME:

☐ URGENT    ☐ FOR REVIEW    ☐ PLEASE COMMENT    ☐ PLEASE REPLY    ☐ PLEASE RECYCLE

NOTES/COMMENTS:

Mechanical properties report.

FAXED  
30AP08

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325 rue Avro  
Pointe-Claire QC H9R 5W3

Téléphone (514) 697-5120  
Fac-simile (514) 694-8310

## Rapport des propriétés mécaniques Mechanical Properties Test Report

Client / Customer : **DART AEROSPACE LTD**  
Adresse / Address : **1270 ABERDEEN STREET  
HAWKESBURY ONT,  
K6A 1K7**

**FAKED**  
301103

# commande Indalex / Indalex order # : **8041731**

# bon de commande / Purchase order # : **6165**

# de matrice / Die # : **MS 18871** Description : **D-2600-5 Light Duty Web**

Alliage & trempage / Alloy & temper : **6061 T6**

# Contrôle / Control # : **73081-1**

# Coulée / Cast # : **43238**

	Min.requis Min.required	Résultat actuel Actual results
Tension ultime Ultimate stress (psi)	38 000	38812
Contrainte élastique Yield stress (psi)	35 000	35434
% élongation dans 2" % elongation in 2"	8	12
Dureté Rockwell E (hre) Rockwell E Hardness (hre)	88 @ 100	90

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
6005A	0,68 - 0,72	0,15 - 0,27	0,08 - 0,12	0,20 - 0,24	0,48 - 0,52	0,03 Max	0,05 Max	0,03 Max
6061	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
6351	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	—	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221 excepté pour la section 8.2 (nombre de spécimen) et AMS QQA 200/8 excepté pour la section 4.2.3.1 (nombre de spécimen) qui sont déterminés par les exigences du client.

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221 except for section 8.2 (number of specimen) and AMS QQA 200/8 except for section 4.2.3.1 (number of specimen) which is determined by customer requirement.

Sincèrement vôtre,  
Yours truly,

date : 2008-04-30

Bruno Morency  
Technicien de la qualité  
Quality technician

Indalex Limited